



# Newsletter

The IES Newsletter is published bi-monthly by the Institute of Ecosystem Studies at the Mary Flagler Cary Arboretum. Located in Millbrook, New York, the Institute is a new division of The New York Botanical Garden. All newsletter correspondence should be addressed to the Editor.

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*A lovely streamside trail winds its way through the hemlocks near the Fern Glen. This area is one of several open to Members and the public.*

## Institute Sets New Public Offerings

by Marc Breslav

Gene E. Likens, Director of the Institute of Ecosystem Studies at the Mary Flagler Cary Arboretum, recently announced that the Institute has set new public hours and educational programs.

"These new offerings reflect our commitment to the sharing of scientific findings with Members and the public, and to public education in general," said Dr. Likens.

Primary among the new offerings is the series of weekly "Sunday Special Programs," which began in January. The programs, led by Institute staff or other experts, include interpretive walks, illustrated lectures and tours of Arboretum facilities.

Another major new offering is the Institute's series of "Ecological Excursions." These trips will investigate the diverse ecosystems of the Northeastern United States. Each trip will be led by an Institute scientist.

The first of these trips, "Cape Cod Ecology and Whale Watch," takes place from Friday, May 11, through Sunday, May 13. Participants should be able to experience the thrill of watching whales breaking the surface of the water only a few yards away. Back on the land, participants will explore the geology, flora and fauna of the Cape Cod region by visiting a variety of characteristic habitats. A second trip, "New Jersey Pine Barrens Ecology," will explore the mysteries of the Pine Barrens. It will be held from Friday, June 29 through Sunday, July 1. Several exciting autumn

trips are also being planned. Call (914) 677-5359 for more information.

Another program, newly open to Members and the public, is the "Scientific Seminars" which have been taking place during the academic year on Fridays at 3:30 p.m., and feature presentations by visiting scientists or Institute staff.

A listing of the dates and titles of some of these new offerings, and other pertinent information for all Institute educational programs and courses, is located in the calendar section on the back page of this newsletter.

The hours of the Gifford House have been expanded. This facility now opens at 9 a.m. Mondays through Saturdays, and closes at 4 p.m. Hours on Sundays are 1 p.m. to 4 p.m.

Portions of the Arboretum grounds continue to be available to Members and the public without charge, but access to the grounds can still only be made after obtaining a permit at the Gifford House.

The Members' library is now located in the Gifford House. Members may borrow books from this library, while others are free to browse.

For the bookish or for those who enjoy the out-of-doors, there is bound to be something of interest at the Arboretum this spring. Indeed, the presence of the new Institute of Ecosystem Studies has brought a variety of exciting new public offerings to Millbrook.



# Familiar Faces ...

by Julie Morgan

## Longtime Employees View New Institute as Another Step Forward to Maturity

*Editor's Note: With all the new faces in this and the past issue of the newsletter, some readers might be wondering whether there are any familiar faces around. Indeed there are: of 62 full-time staff, 35 people have been employees for five years or longer. Julie Morgan, Administrative Assistant, who herself has been on the staff for 4 years, rose to the challenge to talk to a selection of the earlier arrivals about their role in the new Institute. For the record, the longest term employees are Richard Livellara, Maintainer, who has been on the staff of The New York Botanical Garden since 1956, and here since 1972; Winfried Schubert, Coordinator of Operations, who began work with the Garden in 1970 and moved here in 1976; Joseph Blank, Senior Gardener, who, since he began work here in Sept., 1971, has been an official employee of the Arboretum the longest; and Ralph Elliott, Maintainer, who became an employee just one month after Mr. Blank.*



From left, Robert Mickler, Robert Hebb, Janice Claiborne, Jay McAninch and Clive Jones.

"The people now working at the Institute are young, committed, enthusiastic people who have the same sense of mission as the earlier group," Mr. McAninch said. "The main difference is that most of these people are now joined together in a structured way, under the topical heading of ecology. There is a special sense of unity now, and we have a solid environment for pursuing common goals. The new Institute does not mark a violent change in direction, but simply a refocusing." Mr. McAninch's special concerns are in the areas of wild-life ecology, as well as education and policy, as they relate to natural resources.

Clive Jones, Chemical Ecologist at the Arboretum since 1980, feels a similar excitement at the thought of the Institute's new focus. He predicts that these unified aims will give the Institute a worldwide visibility and attract to it people of very high caliber in the field of ecology. These goals coincide with his own aspirations in systems ecology, one focus of which is how chemical signals allow plants to defend themselves.

With its new emphasis on ecological education, the Education Department, headed by Peter Dykeman for almost eleven years, is returning to the pattern of its earlier days when Robert Goodland, former Assistant Director, and Gus Tillman, former Environmentalist, were its resident "roving ecologists." "I feel very comfortable with this direction," Dr. Dykeman stated, while in the midst of setting up a new certificate program in ecology. He also has plans for special field trips, summer programs for local students, and demonstrations of the scientific research which staff are conducting on Arboretum grounds.

Marcia Davis, Secretary to the Education Department, notes that "under the Institute, we at the Gifford House are beginning to feel like a member of the family. The brick walk is being finished outside, and plans are being made for completion of other projects," she said. "The new Institute will encourage education, and hopefully this will mean even more outreach to the community." Ms. Davis feels that the lure of the new lilac collection, plus the perennial garden, when it is finished, will encourage many more visitors to head towards the Gifford House in the future.

Horticulturist Robert Hebb, who has been on the staff for nearly 10 years, is delighted with the Institute's initial moves to focus on the horticultural aspects of the display gardens. "To develop the Gifford Garden as rapidly as we can, to continue our course in developing the Rhododendron Dell, and to anticipate further exciting developments in the Fern Glen are all special concerns of mine," he said.

Robert Mickler has been a longtime research associate at the Arboretum, having worked with David Karnosky, former Institute of Urban Horticulture Director, on air pollution and plant genetics projects. Recently he has been involved with a National Park Service project which examines how deciduous forests vary in damage from air pollution and how this variation is expressed in differences in leaf anatomy. "I am excited about my work here because of the personal satisfaction which I get from doing what I do," he said. "My air pollution work seems to be very pertinent to the aims and goals of the new Institute."



John Bouton

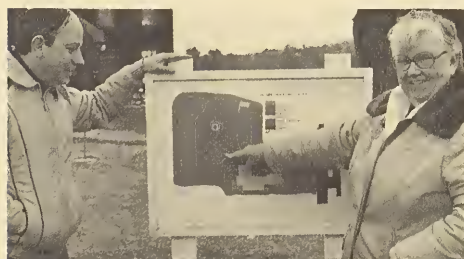
John Bouton, Superintendent of Grounds, brings a broader historical perspective to his present assignment. For nine years, while employed by the Davey Tree Expert Company, Mr. Bouton worked directly under Mary Flagler Cary's super-

vision, caring for the trees on her property. Looking back on the development of this tract, which is sacred land to him, he remarked, "I think Mrs. Cary would have liked most of the changes. The reasons are good, ecologically, and we should be moving in this direction in this day and age." Mr. Bouton hopes that Institute research will result in a curbing of the impact of pollution on the environment.

The new Institute of Ecosystem Studies has already made a positive impact on the lives of its longtime staff. Many of them seem to applaud the new direction of the Institute and its determination to be a leader in the field of ecological research.

Janice Claiborne, Assistant to the Director, has worked at the Arboretum since its early days. "When I arrived in 1974, the Arboretum was a toddler," she said, "moving out in all directions simultaneously, exploring everything. Under our previous director it became a pre-adolescent, losing its babyfat; programs began to take shape and definition, rather than going off on tangents."

Now, with the advent of the Institute of Ecosystem Studies, Ms. Claiborne feels that this process has come to maturity, demonstrating a tightening of focus and discipline. "Every stage has been exciting; I have enjoyed it all and still do," she said. "It is a pleasure to come into an organization in its youth and watch its growing pains and successes. Its greatest strength has always been the terrific people here."



Peter Dykeman and Marcia Davis

Wildlife Ecologist Jay McAninch, who is nearly an eight-year veteran, reinforces this view. "The potential of this place is what brought me here and keeps me here," he said. In the early days of the Arboretum, Mr. McAninch said each scientist represented a whole area of expertise, and a great diversity of interests was the hallmark. Employees worked under very primitive conditions, but nonetheless stretched themselves out in all directions.



# New Faces ...

by Marc Breslav

## Charles D. Canham

Plant Ecologist



Charles D. Canham became interested in botany as a youth, while exploring Harvard University's nearby Black Rock Forest. He went on to obtain a B. S. in Botany from Montana State University, an M.S.

in the same subject from the University of Wisconsin-Madison, and is about to complete his doctorate in Ecology and Evolutionary Biology at Cornell University.

Mr. Canham's research has involved two major topics. As part of his master's thesis, he examined wind-caused disturbances in forests of Wisconsin and Michigan. He compared the sizes of such current blowdowns with those described in historical survey records compiled prior to settlement of the areas. The features had been recorded in part to determine what kind of severe storms the settlers would face. Mr. Canham's current "readings" of the landscape showed that there has been a significant reduction in the number of blowdowns in the younger, more uniform forests that now characterize these areas. More surprisingly, he found that catastrophic thunderstorms, rather than tornadoes, had caused most of the damage in presettlement forests.

Mr. Canham's second major topic of research was begun in the Adirondack Mountains. He has compared the response of late successional tree species like sugar maple and American beech in small-scale openings of the forest's canopy. He is finding that the saplings of these species, rather than growing slowly but continuously, actually grow in several spurts. These spurts occur when there is a disturbance in the canopy, such as when a nearby tree falls. He plans to continue this and related research on the Arboretum property and elsewhere. He will also be able to study the phenomenon in the more controlled conditions of the Institute's greenhouse.

Mr. Canham, his wife, Judy, and daughter, Leah, live in Rhinecliff.

## Kathleen C. Weathers

Research Assistant

A native of Grand Rapids, Mich., Kathleen C. Weathers is coordinating a project at the Institute on the chemistry of cloud water. The project, funded by the Andrew W. Mellon Foundation, will involve analysis of the chemistry of cloud and rain water at some ten sites across the country and in Puerto Rico, and the differences in

cloud and rain content between the sites. Such a study, which will include analysis of the pH of cloud water, has broad implications in the understanding of acid deposition and its effect on plants and animals. For example, while acid rain occurs only when there is rain, acidic cloud water or "acid fog," can bathe upper elevation forests for days at a time. Institute Director Gene E. Likens and F. Herbert Bormann of the Yale University School of Forestry and Environmental Studies are the principal investigators of this project, but Ms. Weathers is playing a major role in coordinating efforts of the researchers at the various sites.



Ms. Weathers worked for Yale University and the Appalachian Mountain Club for two summers, studying cloud water on Mount Washington, N.H. She has also worked at various nature centers, and has a B.S. from Albion College, and an M.F.S. from Yale. She is an avid cross-country skier, and became interested in alpine ecology as a child when her family spent many summers in New Hampshire.

## Barbara McPeck

Receptionist/Typist

One of the pleasant voices that greets callers to the Institute's main number is that of Barbara McPeck, who has recently joined the staff in the many-faceted position of Receptionist/Typist. Along with Faith Bennett, who shares the same title but alternates hours, Ms. McPeck shares the responsibility for greeting visitors and callers to the Plant Science Building.



Ms. McPeck grew up in Poughkeepsie, and has lived in Millbrook for two years with her husband Andrew. They have nine children, ranging in age from 11 to 27 years old. The McPecks are co-owners of the "Grape Shade," a restaurant in Millbrook.

Before coming to the Institute, Ms. McPeck worked for IBM in Poughkeepsie. Prior to that experience, she was a self-described "housewife" for 20 years, which she said was quite a task, given her nine children. She enjoys bicycling and skiing with her children, though of the latter, she said: "My children are much better at it than I am."

# Legislators Review Deer Research

by Clare O'Neill Carr



Institute Director Gene E. Likens, left, stands with Richard J. Keane, Chairman of the state's Assembly Agriculture Committee, during a visit by Albany officials to view deer control research here.

Richard J. Keane, Chairman of the state's Assembly Agriculture Committee; Assemblyman R. Stephen Hawley, committee member and minority whip; and Joseph Gerace, Commissioner of the Department of Agriculture and Markets, were among a group of top state officials who visited the Institute in January to review research on the control of deer damage to crops and orchards.

Among other things, the officials viewed a novel fence which confuses deer, thus keeping them from valuable crops. This experimental fence is the result of the work of a team of researchers from the Institute, led by Wildlife Ecologist Jay McAninch.

"Deer damage is a widespread problem in New York State for fruit growers, nursery operators, homeowners, farmers and foresters," Mr. Gerace said. "This research demonstrates that deer damage can be controlled."

In support of his statement, the Commissioner proposed that the research, funded by the Department of Agriculture and Markets, be increased to at least \$40,000 per year, through 1986. Over the last three years, \$75,000 had been allocated by the Department for his research.

Evidently, some of the other officials who accompanied Mr. Gerace agreed. At press time, Assemblyman Keane had just forwarded a letter to the chairman of the Assembly Ways and Means Committee, urging that \$54,000 be appropriated for the coming fiscal year. Support for this funding level has also been expressed by other members of the Assembly and several senators.



# Elias Named Director of Botanic Garden in California

by Julie Morgan

Thomas S. Elias, Dendrologist and Assistant Director at the Arboretum for the past twelve years, was named Director of the Rancho Santa Ana Botanic Garden in Claremont, California, effective April, 1984. Founded in 1927, this botanic garden is one of the country's leading centers for research and education in systematic and evolutionary botany.

During his tenure at the Arboretum, Dr. Elias wrote or coauthored five books and 46 papers on subjects ranging from street trees to plant nectaries. He developed six master plans for planting and maintaining urban trees in various localities. An inveterate world traveler, he has worked in Japan, the People's Republic of China, Egypt, England and Scotland. As coordinator of a botanical exchange program between the U.S. and U.S.S.R., Dr. Elias has made six trips to the Soviet Union and has hosted many Soviet scientists during their visits to this country.

A highlight of the botanist's career locally has been his involvement in New York State and area communities. He helped to establish the statewide urban forestry program and is chairman of the New York State Urban Forestry Leaders. Dr. Elias has been cochairman of the Village of Millbrook Beautification Committee.

## The New York Botanical Garden Institute of Ecosystem Studies

Mary Flagler Cary Arboretum  
Box AB, Millbrook, New York 12545

## Spring Calendar

### Special Members' Tour

May 23-25 The Private and Public Gardens of Long Island

Hosts: Robert and Winnifred Hebb

This tour provides an opportunity to visit seven exceptional private gardens, as well as a chance to meet their owners. For itinerary and registration contact Jeanette Gorman at (914) 677-5343. Cost is \$180 per person, inclusive.

### Sunday Special Programs

Programs begin at 2 p.m. All programs meet at the Gifford House unless otherwise noted. Members are admitted free of charge; admission for others is \$1 for adults and 50¢ for children under 13.

April 15 **Acid Rain: Causes, Consequences and Controversies.**  
Gene E. Likens, Director. Talk.  
Plant Science Bldg.

April 22 **Easter Sunday** - Closed

April 29 **General Greenhouse Tour.**  
Stafford Foss, Volunteer.  
Tour. Greenhouse.

May 6 **Wappingers Creek Trail in the Spring.** Peter Dykeman, Coordinator of Education. Walk.

May 13 **The Flowers of Mother's Day.**  
Alex Pearl, Nursery Foreman.  
Talk.

May 20 **A Field Guide to Plant Defenses.** Clive Jones, Chemical Ecologist. Walk.

May 27 No program - Arboretum open.

June 3 **The Arboretum Fern Glen.**  
Robert Hebb, Horticulturist.  
Walk. Plant Science Bldg.  
parking area.

June 10 **The Institute Weather Station - What it Does and How its Information is Used.** John S. Eaton, Laboratory Manager.

### Friday Evening Program

Program begins at 8 p.m. at the Plant Science Bldg. Admission for Members and the public is free.

May 4 **The Garden of Eden.**  
Thomas Eisner, Cornell  
University. Film and Talk.

### Ecological Excursions

May 11-13 **Cape Cod Ecology and Whale Watch**

June 29-July 1 **New Jersey Pine Barrens Ecology**

### Courses

**Voices of the Night.** One night,  
April 27 (note change of date.)  
**Growing and Using Herbs.**  
**Roses for Your Garden.**  
**Insect Pests and Diseases of Plants.**  
**Field Botany: Native Flowering Plants of the Arboretum.**  
**Field Botany: Cryptogams.**

### Scientific Seminars

These seminars feature presentations by visiting scientists or Institute staff, and take place at the Plant Science Building on Fridays at 3:30 p.m. Admission is free. For a schedule contact Julie Morgan at (914) 677-5343.

For more information, call (914) 677-5359, except where otherwise noted.

### Special note:

This issue of the "IES Newsletter" is being mailed to all residents in Millbrook. Members regularly receive all issues of the newsletter. If you would like to continue to receive the newsletter, and are not now a member, call Janice Claiborne at (914) 677-5343 for membership information.

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